PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

CHAS. HUDE A/S
33, H.C. Andersens Boulevard
1780 Copenhagen V
DANEMARK

77874 BC

Sagsty..	Lnr	Ing
nn	~~74666~~	~~ZTG4~~

13 APR. 2004

BC

AS 400	Til Hvem
SO	

PCT

WRITTEN OPINION
(PCT Rule 66)

Date of mailing *(day/month/year)*	08.04.2004
REPLY DUE	**within 3 month(s)** from the above date of mailing

Applicant's or agent's file reference		
International application No. PCT/DK 03/00462	International filing date *(day/month/year)* 02.07.2003	Priority date *(day/month/year)* 02.07.2002
International Patent Classification (IPC) or both national classification and IPC A23K1/16, A23K1/16		
Applicant HANSEN, John Erik		

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
   - I ☒ Basis of the opinion
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion

   When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

   How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66 3 For the form and the language of the amendments, see Rules 66 8 and 66 9.

   Also: For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner. see Rule 66 6.

   If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is:

Name and mailing address of the international preliminary examining authority:	Authorized Officer
European Patent Office - P B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Formalities officer (incl extension of time limits) Rossi, C Telephone No. +31 70 340-3322

Form PCT/IPEA/408 (Cover Sheet) (January 2004)

I. Basis of the opinion

1. With regard to the **elements** of the international application *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed")*:

Description, Pages

1-9 as originally filed

Claims, Numbers

1-5 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	
Inventive step (IS)	Claims	1-5
Industrial applicability (IA)	Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: US-A-6 156 333 (LANGREHR JANA S) 5 December 2000 (2000-12-05)
D2: US-A-5 976 568 (RILEY PATRICIA A) 2 November 1999 (1999-11-02)

2. The present application does not meet the requirements of Article 33 (3) PCT because the subject-matter of independent claim 1 does not involve an inventive step.

The document D1 describes feed compositions for improving the immune status of animals which may contain biotin (2.5-10%), allicin (<2%) and vitamin E, vitamin C and selenium (see D1; column 3, line 7-67, column 11, paragraph 3).

The document D2 discloses a system containing biotin, garlic, vitamin C, vitamin E, and selenium (see D2; claim 3).

The subject-matter of independent claim 1 consists in the specification of a kit containing a selection of a composition from the range of values described in the documents D1-D2. Such a selection can only be regarded as inventive, if the chosen composition presents unexpected effects or properties in relation to the rest of the range. However, no such effects or properties are indicated in the application. Hence no inventive step is present in the subject-matter of claim 1.

3. Dependent claims 2-5 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, as the features of these dependent claims have already been employed for the same purpose in similar compositions and processes (see whole document D1; D2).

Chas. Hude
Patents · Trade Marks · Designs

PATENTS
Tage Norga
Ulrik Norgaa
Ole Thierry-Carstensen ° *
Peter Kim Jensen ° *
Ulla C Klinge ° *
Jorgen Siiger ° *
Henrik Zeuthen-Aagaard ° *
Erik Lichtenberg ° *
Bent Christensen ° *
Henrik Dylmer ° *
Peter Englev ° *
Ebbe Johansen
Ulrik von Freiesleben
Morten Rosted
Jens-Holger Stellinger *
Mikkel Bender
Steven R Kitchen
Susanne Nord *secretariat*
Kirsten M Jensen *annuities*

TRADE MARKS AND DESIGNS
Kaj L Henriksen ° °
Henrik Jespersen ° °
Claus Hyllinge °
Birgitte Waagepetersen ° °
Christian Kragelund ° °
Kristiane B Vandborg °
Charlotte Munck ° °
Sanna D Hartvigsen *renewals*
Sonja Nielsen *assignments*

SEARCHES
Louise Dalsgaard

ACCOUNTING/DP
Steffen Hussing

° *Member of The Association of Danish Patent Agents*
* *European Patent Attorney*
° *European Trade Mark Attorney*

The European Patent Office
PCT Department
Erhardtstrasse 27
D-80331 Munich

7 July 2004

Dear Sirs

International patent application No PCT/DK2003/00462
Applicant: John Erik Hansen
International classification: IPC A23K1/16
My ref: 77874 BC/ge

In reply to the first Written Opinion dated 8 April 2004 I shall hereby on behalf of the Applicant make the following remarks.

The Examiner has cited two publications, ie. D1: US-A-6,156,133 (Langrehr) and D2: US-A-5,976,568 (Riley), and states that the present application does not meet the requirements of Article 33(3) PCT because the subject-matter of claim 1 does not involve an inventive step.
D1 discloses feed compositions for improving the immune status of animals, said compositions containing biotin (2.5-10 %), allicin (<2 %) and vitamin E, vitamin C and selenium. D2 discloses a system containing biotin, garlic, vitamin C, vitamin E and selenium.

The Examiner correctly states that the subject-matter of claim 1 of the present application relates to a kit containing a selection of a composition from the range of values described in D1 and D2 However, The Examiner does not mention that the product according to D1 is a specific feed fortifier and enhancer for preruminant, bovine calves comprising animal plasma as well as other ingredients, including biotin, allicin, vitamins and selenium. The product accord-

Chas Hude A/S
H C Andersens Boulevard 33
DK-1780 Copenhagen V
Denmark

Telephone
(+45) 33 15 45 14

Telefax
(+45) 33 15 45 35 (Pat)
(+45) 33 15 51 08 (TM)

E-mail:
chashude@chashude dk
Internet:
www chashude com

IBAN: DK 44 2000 5010120700
Nordea Bank A/S: 2191-5010120700
Bank: S W I F T. address NDEADKKK
Tax I D /VAT No: 12-93-81-79

ing to D2 is a modular system of dietary supplement compositions for use on human beings.

Thus, it can be ascertained that neither D1 nor D2 are aimed at the conditions and the target group of animals at which the present application is aimed.

It can also be ascertained that the vitamin-containing system of the present application demonstrates significant advantages when administered to certain groups of animals in accordance with an administration plan set out in the application.

These advantages can be illustrated by means of the following examples:

1. Mink

A public inquiry among mink farmers in Denmark indicates that 40 % of the respondents find the condition of the animals unchanged, whereas 60 % record an improvement in the condition of the animals, particularly in relation to the so-called Greasy Kits Syndrome. This condition causes unthriftiness, reduced weight gain and a mortality rate of up to 50 %. The cause of the syndrome is not yet known, but it is supposed to be affected by the development of the digestive tract.

The general mortality among minks (both adult animals and young ones) is indicated as being declining when kit 2 is used in combination with a feed additive in the form of natural antioxidants (blueberries, allicin and roots).

2. Milch cows

40-50 % of milch cows worldwide become infected with the disease digital dermatitis (corresponding to about 180 million animals) causing a decline in the milk production of up to 40 %. In a Danish herd of more than 4,000 cows, the situation has stabilized, ie. no new incidents are found, and more than half the herd has been cured after treatment with kit 1 followed by treatment with kit 2.

3. Broilers

On the biggest chicken farm in Denmark having an annual production of approx. 12 million chickens, a considerable improvement of the immune response of the animals within this animal group has been recorded after treatment with kit 2 according to the invention. An effect was recorded within 12 days in the form of a considerable weight gain of 20 g per chicken. The weight gain was approx. 100 g per chicken on the time of slaughtering (after 43 days), thus yielding increased profit of approx. 10 % for the farmer as well as improved quality of life for the animals.

Another aspect is that the useful parts of the vitamin-containing system according to the invention are accumulated in the liver of the chicken, from where they can be extracted and used again.

4. Pigs

Several positive responses have been received from large-scale pig breeders reporting that treatment with kit 2 and a natural feed additive is effective against diarrhoea and a too high intensity of infection. In this way, it becomes possible to reduce the use of medicine considerably and increase the quality of life for the animals – and thus ensure the ultimate product quality.

On the basis of the above, it is the opinion of the Applicant that it has been substantiated that the vitamin-containing system according to the invention leads to unexpected positive effects which could not have been anticipated on the basis of the prior art, including the cited documents D1 and D2.

I hope that the Examiner agrees with this view and look forward to receiving a positive Preliminary Examination Report.

Yours faithfully

Bent Christensen
Representative of the applicant

Enc: Form 1038